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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/654,903

09/05/2003

Hsiao-Liang Chen

TSAI 122

6802

7590

08/25/2004

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EXAMINER

EDWARDS, ANTHONY Q

ART UNIT

PAPER NUMBER

2835

DATE MAILED: 08/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/654,903

Applicant(s)

CHEN, HSIAO-LIANG

Examiner

Anthony Q. Edwards

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “sliding fixing pin” must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled “Replacement Sheet” in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 7 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by U.s. Patent No. 5,777,845 to Krum et al. (“Krum” hereinafter). Referring to claim 1, Krum discloses a peripheral device fixing module (10) mounting a first peripheral device (12) and a second peripheral device (20) in a computer (not shown), the peripheral device fixing module (10) comprising a module base (3) for fixing the first peripheral device and the second peripheral device and coupling with the computer, wherein the module base (3) comprises at least one first fixing device (34) disposed on one side of the module base and corresponding to screw holes (not shown) of the first peripheral device, at least one second fixing second fixing device disposed on the module base with the same side of the first fixing device and corresponding to screw holes (not shown) of the second peripheral device (see Figs. 1, 2 and 4). Krum also discloses the peripheral device fixing module having a shaft (40) coupling with the module base, and a rotatable fixing arm (18) coupling with the shaft and rotating along the shaft, wherein the rotatable fixing arm (18) further comprises a rotatable frame (same as 18), a spring device (44) mounted on the rotatable frame and disposed on another side of the module base opposite the first fixing device (12), a device clasper (46) mounted on the rotatable frame and disposed on another side of the module base opposite the second fixing device, and a spring clasper (66) mounted on the rotatable frame, the spring clasper locking the module base (3) when the

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rotatable fixing arm (18) closes on the module base in a closed position, wherein the spring device (44) presses the first peripheral device (12) so that the screw holes of the first peripheral device couples with the first fixing device (34) and the device clasper (46) clamps on the second peripheral device (20) to press the second peripheral device so that the screw holes of the second peripheral device couple with the second fixing device (34). See Figs. 4 and 6, and the corresponding specification.

Referring to claim 7, Krum discloses the peripheral device fixing module, wherein the spring device (50) comprises a coil spring. See Fig. 6 and the corresponding specification.

Referring to claim 8, Krum discloses the peripheral device fixing module, wherein the rotatable fixing arm (18) further comprises a third fixing device (34) opposite the first fixing device to couple with another screw holes of the first peripheral device (12) at the closing position. See Fig. 4 and the corresponding specification.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krum.

Referring to claim 5, Krum discloses the peripheral device as claimed, except that the rotatable fixing arm clasper (i.e., the protrusion on the end of arm 18) is located on the rotatable fixing

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arm (18), and the corresponding opening (i.e., the notch on the face of module 3) is located on the module base (3). See Figs. 1 and 4.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the peripheral device fixing module of Krum, such that the fixing arm clasper is located on the module base and the corresponding opening is located on the arm, since it has been held that rearranging parts of an invention involves only routine skill in the art (*In re Japikse*, 181 F.2d 1019, 86 USPQ 70(CCPA 1950)).

Referring to claim 6, Krum discloses the peripheral device as claimed, except for the spring device comprising a leaf spring. As Stated in MPEP 2186, in determining equivalence, "[a]n analysis of the role played by each element in the context of the specific patent claim will thus inform the inquiry as to whether a substitute element matches the function, way, and result of the claimed element, or whether the substitute plays a role substantially different from the claimed element." 41USPQ2d at 1875. In the instant case, the substitute element for "a coil spring" of Krum perfectly matches the function, way, and result of the claimed elements (i.e., the leaf spring) of the present invention.

Claims 2-4, 9, 10 and 12-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krum in view of U.S. Patent No. 6,388,876 to Chen. Referring to claim 2, Krum discloses the invention as claimed, except for teaching how the module base is coupled to the computer and, more specifically the module base further comprising a sliding fixing pin to couple the module base with the computer. Chen discloses a computer enclosure (see Fig. 3) with pivotable drive bracket or module (10) comprising a sliding fixing pin (42, 44) and corresponding slots (266) to couple module with the computer (200).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the peripheral device fixing module of Krum with the sliding fixing pin (and corresponding slots) as taught by Chen, since the device of Chen would allow easy installation and replacement of peripheral devices from the module of Krum.

Referring to claim 3, Krum in view of Chen discloses the peripheral device fixing module as claimed, wherein the rotatable fixing arm (18) further comprises a sliding fixing plate (i.e., the bar at the end of the arm) and a locking device (70) to couple with the computer. See Figs. 4 and 7 of Krum.

Referring to claim 4, Krum in view of Chen discloses the peripheral device fixing module as claimed, wherein the computer further comprises a computer base (260), the computer base comprising a sliding fixing slot (266) to couple with the sliding fixing pin (42, 44), see Fig. 3 of Chen, a sliding fixing hole (i.e., notch adjacent hole 74 on module base 3) to couple with the sliding fixing plate, see Fig. 4 of Krum, and a screw hole (74) to couple with the locking device (70).

Referring to claims 9, 10, 16 and 17, Krum discloses the peripheral device as claimed, except for specifically teaching first and second peripheral devices comprising a floppy disk drive and optical disc drive, respectively. Chen discloses that a variety of peripheral devices may be used in the computer enclosure, e.g., CD-ROM, FDD and HDD. See col. 2, lines 24-34 of Chen.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the peripheral device fixing module of Krum with both a floppy disk drive

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and optical disc drive, respectively, since the variety disclosed in Chen would allow for the device of Krum to utilize the latest technology in storage devices for the computer industry.

Referring to claims 11 and 18, Krum in view of Chen discloses the peripheral device fixing module as claimed, wherein the computer further comprises a sliding fixing pin (42, 44) and corresponding slots (266) to couple the module with the computer (200), see Fig. 3 of Chen, a sliding fixing plate (i.e., the bar at the end of the arm) and a locking device (70) to couple with the computer, and a screw hole (74) to couple with the locking device (70), see Fig. 4 of Krum.

Although a “1U” computer server is not specifically taught, Official Notice is taken that it is well known in the art of computer enclosures to utilize standard sizes, such as “1U” servers as a means of housing high density disk arrays. It would have been obvious to one of ordinary skill in the art at the time the invention was made to house the peripheral device fixing module of Krum, as modified, in a “1U” server, since this standard allows for a smaller shelf space.

Referring to claims 12 and 19, Krum in view of Chen discloses the peripheral device fixing module as claimed, except that the rotatable fixing arm clasper (i.e., the protrusion on the end of arm 18) is located on the rotatable fixing arm (18), and the corresponding opening (i.e., the notch on the face of module 3) is located on the module base (3). See Figs. 1 and 4 of Krum.

As mentioned above, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the peripheral device fixing module of Krum, such that the fixing arm clasper is located on the module base and the corresponding opening is located on the arm, since it has been held that rearranging parts of an invention involves only routine skill in the art (*In re Japikse*, 181 F.2d 1019, 86 USPQ 70(CCPA 1950)).



Referring to claim 13, Krum in view of Chen discloses the peripheral device fixing module as claimed. As mentioned above, in determining equivalence, "[a]n analysis of the role played by each element in the context of the specific patent claim will thus inform the inquiry as to whether a substitute element matches the function, way, and result of the claimed element, or whether the substitute plays a role substantially different from the claimed element" (see MPEP 2186, 41USPQ2d at 1875). In the instant case, the substitute element for "a coil spring" of Krum perfectly matches the function, way, and result of the claimed elements (i.e., the leaf spring) of the present invention.

Referring to claim 14, Krum in view of Chen discloses the peripheral device fixing module as claimed, wherein the spring device (50) comprises a coil spring. See Fig. 6 and the corresponding specification of Krum.

Referring to claim 15, Krum in view of Chen discloses the peripheral device fixing module as claimed, wherein the rotatable fixing arm (18) further comprises a third fixing device (34) opposite the first fixing device to couple with another screw holes of the first peripheral device (12) at the closing position. See Fig. 4 and the corresponding specification of Krum.

Referring to claim 20, Krum in view of Chen discloses the peripheral device fixing module as claimed, wherein the rotatable fixing arm (18) further comprises a third fixing device (34) opposite the first fixing device to couple with another screw holes of the first peripheral device (12) at the closing position. See Fig. 4 and the corresponding specification of Krum.

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*Conclusion*

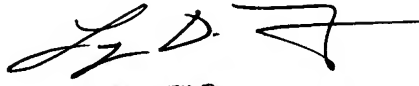
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: U.S. Patent Application Publication No. US2003/0099094 to Coles et al. disclose a low profile latch activator; U.S. Patent No. 6,460,948 to Roesner et al. disclose a drive bracket in stack arrangement; and U.S. Patent No. 6,193,339 to Behl et al. disclose a drive carrier with cam mechanism.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Q. Edwards whose telephone number is 571-272-2042. The examiner can normally be reached on M-F (7:30-3:00) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on 571-272-2800, ext. 35. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

August 20, 2004  
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